

**§ 21.132****27 CFR Ch. I (4-1-02 Edition)**

Percent sucrose octaacetate=(ml NaOH - ml H<sub>2</sub>SO<sub>4</sub>)×4.2412/weight of sample

[T.D. ATF-133, 48 FR 24673, June 2, 1983. Re-designated by T.D. ATF-442, 66 FR 12854, Mar. 1, 2001]

**§ 21.132 Toluene.**

(a) *Distillation range.* (For applicable ASTM method, see 1980 Annual Book of ASTM Standards, Part 29, page 569, Standard No. D 362-75 for industrial grade toluene; for incorporation by reference, see § 21.6(b).) When 100 ml of toluene are distilled by this method, not more than 1 ml should distill below 109 °C., and not less than 99 ml below 112 °C.

(b) *Boiling point.* 110.6 °±1 °C.

(c) *Odor.* Characteristic odor.

(d) *Specific gravity at 15.56 °/15.56 °C.* 0.869 to 0.873.

[T.D. ATF-133, 48 FR 24673, June 2, 1983. Re-designated by T.D. ATF-442, 66 FR 12854, Mar. 1, 2001]

**§ 21.133 Vinegar.**

(a) *Vinegar, 90-grain:*

*Acidity (as acetic acid).* 9.0 percent by weight, minimum.

(b) *Vinegar, 60-grain:*

*Acidity (as acetic acid).* 6.0 percent by weight, minimum.

[T.D. ATF-133, 48 FR 24673, June 2, 1983. Re-designated by T.D. ATF-442, 66 FR 12854, Mar. 1, 2001]

### **Subpart F—Uses of Specially Denatured Alcohol and Specially Denatured Rum**

#### **§ 21.141 List of products and processes using specially denatured alcohol and rum, and formulas authorized therefor.**

This section lists, alphabetically by product or process, formulas of specially denatured alcohol authorized for use in those products or processes, and lists the code numbers assigned thereto. Specially denatured rum, as well as specially denatured alcohol, may be used in tobacco sprays and flavors, Code No. 460, under Formula No. 4.

#### **USES OF SPECIALLY DENATURED ALCOHOL 1**

Product or process	Code No.	Formulas authorized
Acetaldehyde .....	551	1, 2-B, 29.

#### **USES OF SPECIALLY DENATURED ALCOHOL 1—Continued**

Product or process	Code No.	Formulas authorized
Acetic acid .....	512	29, 35-A.
Adhesives and binders .....	036	1, 3-A, 3-C, 12-A, 23-A, 30.
Aldehydes, miscellaneous ..	552	1, 2-B, 29.
Alkaloids (processing) ..	344	1, 2-B, 2-C, 3-A, 3-C, 12-A, 13-A, 17, 23-A, 30, 32, 35-A.
Animal feed supplements ..	910	35-A.
Antibiotics (processing) ..	343	1, 2-B, 3-A, 3-C, 12-A, 13-A, 23-A, 30, 32, 35-A.
Antifreeze, proprietary ..	760	1.
Antiseptic, bathing solution (restricted) ..	220	46.
Antiseptic solutions, U.S.P. or N.F. ....	244	23-A, 37, 38-B, 38-F.
Bath preparations .....	142	1, 3-A, 3-B, 3-C, 23-A, 30, 36, 38-B, 39-B, 39-C, 40, 40-A, 40-B, 40-C.
Bay rum .....	112	23-A, 37, 38-B, 39, 39-B, 39-D, 40, 40-A, 40-B, 40-C.
Biocides, miscellaneous ..	410	1, 3-A, 3-B, 3-C, 23-A, 23-H, 27-A, 27-B, 30, 37, 38-B, 39-B, 40, 40-A, 40-B, 40-C.
Blood and blood products (processing) .....	345	1, 3-A, 3-C, 12-A, 13-A, 23-A, 30.
Brake fluids .....	720	1, 3-A, 3-C.
Candy glazes .....	015	13-A, 23-A, 35, 35-A, 45.
Cellulose coatings .....	011	1, 3-A, 3-C, 23-A, 30.
Cellulose compounds (dehydration) .....	311	1, 2-B, 3-A, 3-C, 32.
Cellulose intermediates .....	034	1, 3-A, 3-C, 13-A, 19, 23-A, 32.
Chemicals (miscellaneous) .....	579	1, 2-B, 2-C, 3-A, 3-C, 6-B, 12-A, 13-A, 17, 20, 29, 30, 32, 36.
Cleaning solutions .....	450	1, 3-A, 3-C, 23-A, 23-H, 30, 36, 39-B, 40, 40-A, 40-B, 40-C.
Coatings, miscellaneous .....	016	1, 3-A, 3-C, 23-A.
Collodions, industrial ....	034	1, 3-A, 3-C, 13-A, 19, 23-A, 32.
Collodion, U.S.P. ....	241	13-A, 19, 32.
Colognes .....	122	38-B, 39, 39-A, 39-B, 39-C, 40, 40-A, 40-B, 40-C.
Crude drugs (processing) .....	341	1, 2-B, 3-A, 3-C, 23-A, 30.
Cutting oils .....	730	1, 3-A, 3-C.
Dehydration products, miscellaneous .....	315	1, 2-B, 3-A, 3-C.
Dentifrices .....	131	31-A, 37, 38-B, 38-C, 38-D.
Deodorants (body) .....	114	23-A, 38-B, 39-B, 39-C, 40, 40-A, 40-B, 40-C.
Detergents, household .....	450	1, 3-A, 3-C, 23-A, 23-H, 30, 36, 39-B, 40, 40-A, 40-B, 40-C.
Detergents, industrial ...	440	1, 3-A, 3-C, 23-A, 30.
Detonators .....	574	1, 6-B.
Disinfectants .....	410	1, 3-A, 3-B, 3-C, 23-A, 23-H, 27-A, 27-B, 30, 37, 38-B, 39-B, 40, 40-A, 40-B, 40-C.

**Bureau of Alcohol, Tobacco and Firearms, Treasury**

**§ 21.141**

**USES OF SPECIALLY DENATURED ALCOHOL<sup>1</sup>—**  
Continued

Product or process	Code No.	Formulas authorized	Product or process	Code No.	Formulas authorized
Drugs and medicinal chemicals.	575	1, 2-B, 2-C, 3-A, 3-C, 6-B, 12-A, 13-A, 17, 29, 30, 32.	Iodine solutions (including U.S.P. and N.F. tinctures).	230	25, 25-A.
Drugs, miscellaneous (processing).	349	1, 2-B, 3-A, 3-C, 13-A, 23-A, 30, 35-A, 38-B.	Laboratory reagents (for sale).	811	3-A, 3-C, 30.
Duplicating fluids .....	485	1, 3-A, 3-C, 30.	Laboratory uses, general (own use only).	810	3-A, 3-C, 30.
Dyes and intermediates	540	1, 2-B, 2-C, 3-A, 3-C, 12-A, 29, 36.	Lacquer thinners .....	042	1, 23-A.
Dyes and intermediates (processing).	351	1, 2-B, 3-A, 3-C, 12-A.	Liniments, U.S.P. or N.F.	243	27, 27-B, 38-B.
Dye solutions, miscellaneous.	482	1, 3-A, 3-C, 23-A, 30.	Lotions and creams (body, face, and hand).	113	23-A, 23-H, 31-A, 37, 38-B, 39, 39-B, 39-C, 40, 40-A, 40-B, 40-C.
Embalming fluids, etc ...	420	1, 3-A, 3-C, 22, 23-A.	Medicinal chemicals (processing).	344	1, 2-B, 2-C, 3-A, 3-C, 12-A, 13-A, 17, 23-A, 30, 32, 35-A.
Esters, ethyl (miscellaneous).	523	1, 2-B, 2-C, 6-B, 12-A, 13-A, 29, 32, 35-A.	Miscellaneous chemicals (processing).	358	1, 2-B, 2-C, 3-A, 3-C, 12-A, 13-A, 17, 23-A, 30, 35-A.
Ether, ethyl .....	561	1, 2-B, 13-A, 29, 32.	Miscellaneous products (processing).	359	1, 2-B, 2-C, 3-A, 3-C, 12-A, 13-A, 17, 23-A, 30, 35-A.
Ethers, miscellaneous ..	562	1, 2-B, 13-A, 29, 32.	Mouth washes .....	132	37, 38-B, 38-C, 38-D, 38-F.
Ethyl acetate .....	521	1, 2-B, 29, 35-A.	Organosilicone products.	576	2-B, 3-A, 3-C, 30.
Ethylamines .....	530	1, 2-B, 2-C, 3-A, 3-C, 12-A, 29, 36.	Pectin (processing) .....	331	1, 2-B, 3-A, 3-C, 13-A, 23-A, 30, 35-A.
Ethyl chloride .....	522	1, 2-B, 29, 32.	Perfume materials (processing).	352	1, 2-B, 3-A, 3-C, 12-A, 13-A, 30.
Ethylene dibromide .....	571	1, 2-B, 29, 32.	Perfumes and perfume tinctures.	121	38-B, 39, 39-B, 39-C, 40, 40-A, 40-B, 40-C.
Ethylene gas .....	572	1, 2-B, 29, 32.	Petroleum products .....	320	1, 2-B, 3-A, 3-C.
Explosives .....	033	1, 2-B, 3-A, 3-C.	Photoengraving dyes and solutions.	481	1, 3-A, 3-C, 13-A, 30, 32.
External pharmaceuticals, not U.S.P. or N.F.	210	23-A, 23-F, 23-H, 27, 27-A, 27-B, 33, 36, 37, 38-B, 38-F, 39-B, 40, 40-A, 40-B, 40-C.	Photographic chemicals (processing).	353	1, 2-B, 3-A, 3-C, 13-A, 30.
External pharmaceuticals, miscellaneous, U.S.P. or N.F.	249	23-A, 25, 25-A, 33, 38-B, 40-B.	Photographic film and emulsions.	031	1, 2-B, 3-A, 3-C, 13-A, 19, 30, 32.
Fluid uses, miscellaneous.	750	1, 3-A, 3-C, 23-A, 30.	Pill and tablet manufacture.	349	1, 2-B, 3-A, 3-C, 13-A, 23-A, 30, 35-A, 38-B.
Food products, miscellaneous (processing).	332	1, 2-B, 3-A, 3-C, 13-A, 23-A, 30, 32, 35-A.	Plastics, cellulose .....	021	1, 2-B, 3-A, 3-C, 12-A, 13-A, 30.
Fuel uses, miscellaneous.	630	1, 3-A, 3-C, 28-A.	Plastics, non-cellulose (including resins).	022	1, 2-B, 3-A, 3-C, 12-A, 13-A, 30.
Fuels, airplane and supplementary.	612	1, 3-A, 3-C, 28-A.	Polishes .....	051	1, 3-A, 3-C, 30.
Fuels, automobile and supplementary.	611	1, 3-A, 3-C, 28-A.	Preserving solutions .....	430	1, 3-A, 3-C, 12-A, 13-A, 22, 23-A, 30, 32, 37, 38-B, 42, 44.
Fuels, proprietary heating.	620	1, 3-A, 3-C, 28-A.	Product development and pilot plant (own use only).	812	All formulas.
Fuels, rocket and jet ....	613	1, 3-A, 3-C, 28-A.	Proprietary solvents .....	041	1, 3-A.
Fungicides .....	410	1, 3-A, 3-B, 3-C, 23-A, 23-H, 27-A, 27-B, 30, 37, 38-B, 39-B, 40, 40-A, 40-B, 40-C.	Refrigerating uses .....	740	1, 3-A, 3-C, 23-A, 30.
Glandular products (processing).	342	1, 2-B, 3-A, 3-C, 12-A, 13-A, 23-A, 30, 32, 35-A.	Resin coatings, natural .....	014	1, 23-A.
Hair and scalp preparations.	111	3-B, 23-A, 23-F, 23-H, 37, 38-B, 39, 39-A, 39-B, 39-C, 39-D, 40, 40-A, 40-B, 40-C.	Resin coatings, synthetic .....	012	1, 3-A, 3-C, 23-A, 30.
Hormones (processing)	342	1, 2-B, 3-A, 3-C, 12-A, 13-A, 23-A, 30, 32, 35-A.	Resins, synthetic .....	590	3-A, 3-C, 29, 30, 35-A.
Incense .....	470	3-A, 3-C, 22, 37, 38-B, 39-B, 39-C, 40, 40-A, 40-B, 40-C.	Room deodorants .....	470	3-A, 3-C, 22, 37, 38-B, 39-B, 39-C, 40, 40-A, 40-B, 40-C.
Inks .....	052	1, 3-A, 3-C, 13-A, 23-A, 30, 32, 33.	Rosin (processing) .....	354	1, 3-A, 3-C, 12-A.
Insecticides .....	410	1, 3-A, 3-B, 3-C, 23-A, 23-H, 27-A, 27-B, 30, 37, 38-B, 39-B, 40, 40-A, 40-B, 40-C.	Rotogravure dyes and solutions.	481	1, 3-A, 3-C, 13-A, 30, 32.
			Rubber (latex) (processing).	355	1, 3-A, 3-C.
			Rubber, synthetic .....	580	29, 32.
			Rubbing alcohol .....	220	23-H.
			Scientific instruments ...	710	1, 3-A, 3-C.

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### USES OF SPECIALLY DENATURED ALCOHOL<sup>1</sup>— Continued

Product or process	Code No.	Formulas authorized
Shampoos .....	141	1, 3-A, 3-B, 3-C, 23-A, 27-B, 31-A, 36, 38-B, 39-A, 39-B, 40, 40-A, 40-B, 40-C.
Shellac coatings .....	013	1, 23-A.
Soaps, industrial .....	440	1, 3-A, 3-C, 23-A, 30.
Soaps, toilet .....	142	1, 3-A, 3-C, 23-A, 30, 36, 38-B, 39-B, 39-C, 40, 40-A, 40-B, 40-C.
Sodium ethylate, anhydrous (restricted).	524	2-B.
Sodium hydrosulfite (dehydration).	312	1, 2-B, 3-A, 3-C.
Soldering flux .....	035	1, 3-A, 3-C, 23-A, 30.
Solutions, miscellaneous .....	485	1, 3-A, 3-C, 23-A, 30, 40-C.
Solvents and thinners (other than proprietary solvents or special industrial solvents).	042	1, 23-A, 30.
Solvents, special (restricted sale).	043	1, 3-A, 3-C.
Stains (wood) .....	053	1, 3-A, 3-C, 23-A, 30.
Sterilizing solutions .....	430	1, 3-A, 3-C, 12-A, 13-A, 22, 23-A, 30, 32, 37, 38-B, 42, 44.
Theater sprays .....	470	3-A, 3-C, 22, 37, 38-B, 39-B, 39-C, 40, 40-A, 40-B, 40-C.
Tobacco sprays and flavors.	460	4.
Toilet waters .....	122	38-B, 39, 39-A, 39-B, 39-C, 40, 40-A, 40-B, 40-C.
Transparent sheetings ..	032	1, 2-B, 3-A, 3-C, 13-A, 23-A.
Unclassified uses <sup>2</sup> .....	900	1, 3-A, 3-C.
Vaccine (processing) ....	343	1, 2-B, 3-A, 3-C, 12-A, 13-A, 23-A, 30, 32, 35-A.
Vinegar .....	511	18, 29, 35-A.
Vitamins (processing) ...	342	1, 2-B, 3-A, 3-C, 12-A, 13-A, 23-A, 30, 32, 35-A.
Xanthates .....	573	1, 2-B, 29.
Yeast (processing) .....	342	1, 2-B, 3-A, 3-C, 12-A, 13-A, 23-A, 30, 32, 35-A.

<sup>1</sup>Other products or processes may be authorized under §21.31(c).

<sup>2</sup>Persons desiring other formulas for this use should indicate the fact in the space provided for this purpose on ATF Form 5150.19.

[T.D. ATF-133, 48 FR 24673, June 2, 1983, as amended by T.D. ATF-199, 50 FR 9183, Mar. 6, 1985; T.D. ATF-435, 66 FR 5475, Jan. 19, 2001; T.D. ATF-442, 66 FR 11854, Mar. 1, 2001]

## 27 CFR Ch. I (4-1-02 Edition)

### Subpart G—Denaturants Authorized for Denatured Spirits

#### §21.151 List of denaturants authorized for denatured spirits.

Following is an alphabetical listing of denaturants authorized for use in denatured spirits:

#### DENATURANTS AUTHORIZED FOR COMPLETELY DENATURED ALCOHOL (C.D.A.), SPECIALLY DENATURED ALCOHOL (S.D.A.), AND SPECIALLY DENATURED RUM (S.D.R.)

Acetaldehyde .....	S.D.A. 29.
Acetone, U.S.P. ....	S.D.A. 23-A, 23-H.
Acetaladol .....	C.D.A. 18.
Almond oil, bitter, N.F.X .....	S.D.A. 38-B.
Alpha Terpineol .....	S.D.A. 38-B.
Ammonia, aqueous .....	S.D.A. 36.
Ammonia solution, strong, N.F. ....	S.D.A. 36.
Anethole, N.F. ....	S.D.A. 38-B.
Anise oil, N.F. ....	S.D.A. 38-B.
Bay oil (myrcia oil), N.F.XI .....	S.D.A. 23-F, 38-B, 39-D.
Benzaldehyde, N.F. ....	S.D.A. 38-B.
Benzene .....	S.D.A. 2-B, 2-C, 12-A.
Bergamot oil, N.F.XI .....	S.D.A. 23-F, 38-B.
Bone oil (Dipple's oil) .....	S.D.A. 17.
Boric acid, N.F. ....	S.D.A. 38-F.
Brucine alkaloid .....	S.D.A. 40.
Brucine sulfate, N.F.IX .....	S.D.A. 40.
n-Butyl alcohol .....	S.D.A. 44.
tert-Butyl alcohol .....	S.D.A. 39, 39-A, 39-B, 40, 40-A, 40-B, 40-C.
Camphor, U.S.P. ....	S.D.A. 27, 27-A, 38-B.
Caustic soda, liquid .....	S.D.A. 36.
Cedar leaf oil, U.S.P.XIII .....	S.D.A. 38-B.
Chloroform .....	S.D.A. 20.
Chlorothymol, N.F.XII .....	S.D.A. 38-B, 38-F.
Cinchonidine .....	S.D.A. 39-A.
Cinchonidine sulfate, N.F.IX .....	S.D.A. 39-A.
Cinnamic aldehyde (cinnamaldehyde), N.F.IX. ....	S.D.A. 38-B.
Cinnamon oil, N.F. ....	S.D.A. 38-B.
Citronella oil, natural .....	S.D.A. 38-B.
Clove oil, N.F. ....	S.D.A. 27-A, 38-B.
Coal tar, U.S.P. ....	S.D.A. 38-B.
Denatonium benzoate, N.F. ....	S.D.A. 1, 40-B.
Diethyl phthalate .....	S.D.A. 39-B, 39-C.
Ethyl acetate .....	S.D.A. 29, 35, 35-A.
Ethyl ether .....	S.D.A. 13-A, 19, 32.
Eucalyptol, N.F.XII .....	S.D.A. 37, 38-B.
Eucalyptus oil, N.F. ....	S.D.A. 38-B.
Eugenol, U.S.P. ....	S.D.A. 38-B.
Formaldehyde solution, U.S.P. ....	S.D.A. 22, 38-C, 38-D.
Gasoline .....	C.D.A. 18, 19; S.D.A. 28-A.
Gasoline, unleaded .....	C.D.A. 18, 19, 20; S.D.A. 28-A.
Gentian violet .....	S.D.A. 33.
Gentian violet, U.S.P. ....	S.D.A. 33.
Glycerin (Glycerol), U.S.P. ....	S.D.A. 31-A.
Green soap, U.S.P. ....	S.D.A. 27-B.
Guaiacol, N.F.X .....	S.D.A. 38-B.